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10/552,958

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Jong Seog Kim

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EXAMINER

PERRIN, JOSEPH L

ART UNIT

PAPER NUMBER

1792

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--|---------------------------------------|--|
| Office Action Summary | Application No. 10/552,958 | Applicant(s) KIM, JONG SEOG | |
| | Examiner Joseph L. Perrin, Ph.D. | Art Unit 1792 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 22-30 is/are rejected.
- 7) ☒ Claim(s) 13-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20070911</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The Examiner notes that the disclosure of "related art" is presumed to be "prior art" absent evidence to the contrary under 37 CFR 1.105(1)(viii). The Examiner knows of no other provision in the MPEP for describing that which is old in the drawings other than the labeling of a figure as --Prior Art--.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 7, 9, 10 & 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 & 30 recite the limitation "the cabinet" in line 7 & 8, respectively. There is insufficient antecedent basis for this limitation in the claim.

In claim 7, the skirt portion of the piston having a diameter greater than the inside diameter of the cylinder is indefinite because the piston being located inside the cylinder makes it physically impossible for the structure inside to have a larger diameter, such structure resulting in the extension of the skirt into the walls of the cylinder and destroying the function of the structure. Clarification and correction are required.

Claims 9 & 16 contains the trademark/trade name "Teflon". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe "(PTFE) polytetrafluoroethylene" and, accordingly, the identification/description is indefinite.

Regarding claims 9 & 10, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Additionally regarding claim 10, it is unclear what is meant by "good heat resistance and chemical resistance" as the determination of what is "good" is subjective

Art Unit: 1792

in nature and fails to distinctly claim the invention (what may be “good” for one person may not be “good” for another). As such, the metes and bounds of patent protection sought are not defined. Correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1792

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 4, 6, 8, 22, 23, 24 & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,691,842 to LAI in view of U.S. Patent No. 5,080,204 to BAUER et al. ("BAUER"). Regarding claims 1, 4, 6, 8, 23, 24 & 29, LAI discloses an oil damper comprising a hollow cylinder (1) containing oil, a holder (131) fixedly secured to one end of the cylinder and capable of performing the intended use of securing the damper to a tub, a shaft (11) passed through, and exposed from the other end of the cylinder, a holder (12) fixedly secured to the shaft at an end exposed to an outside of the cylinder and capable of performing the intended use of securing the damper to a base side of a cabinet, a piston (2) having plural oil holes (21) for sliding inside the cylinder, the outside circumferential surface of the cylinder and inside circumference surface of holder (131) have threads (13) for joining with each other by thread fastening, the piston/shaft fastening comprising a conventional nut and bolt configuration (not numbered, see Fig. 1), the piston being formed with at least one groove (20) in an outside circumferential surface, and the holders being fastened to the damper to form one body, and the end of the cylinder reduced in diameter (how the end of the cylinder is formed (i.e. melting) is directed to the method of making and not the apparatus as claimed. Regarding claim 22, the change in shape is *prima facie* obvious, since such a modification would have involved a mere change in the form or shape of a component. A change in form or shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976). However, LAI does

Art Unit: 1792

not expressly disclose the material used for the damper. BAUER teaches that it is known to form a frictional damper via plastic injection molding (see col. 4, ll. 1-2).

Therefore, the position is taken that it would have been *prima facie* obvious to form the known damper of LAI with known materials and manufacturing methods, such as plastic injection molding as disclosed in BAUER, due to the well known and common knowledge advantages of plastic injection molding, for instance, decreased cost, decreased weight, ease of manufacture, etc.

It is noted that the claimed recitation "for a drum type washing machine" is intended use and not afforded patentable weight, and as such, the claims are construed to simply read on an oil damper. However, it is further noted that the combination of a washing machine and oil damper in itself does not serve to patentably distinguish. Applicant is urged to carefully review the state of the art as many of the claimed structural components and materials of the damper are considered well known in the art, and the combination of known components and known materials is generally considered *prima facie* obvious. Applicant is further reminded that novelty does not equate to patentability, and the claimed invention should be clearly defined as to how it serves to patentably distinguish over the prior art of record.

8. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over LAI in view of BAUER, and further in view of U.S. Patent No. 6,607,186 to VOELKEL. LAI in view of BAUER, *supra*, discloses the claimed invention with the exception of an o-ring mounted in a groove region and in combination with a thread portion for sealingly

Art Unit: 1792

fastening a damper and holder. VOELKEL teaches that is known to provide an oil damper with a holder attached to the end of the cylinder of an oil damper with threads (158) and o-rings (162/164) mounted in circular grooves (166/168) for the purpose of providing a tight seal between the cylinder (106) and the mount (140). Therefore, the position is taken that it would have been obvious to substitute the fastening means of LAI with that disclosed in VOELKEL to produce the predictable result of providing a tight seal between the cylinder and mount.

9. Claims 5, 9, 10, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over LAI in view of BAUER, and further in view of U.S. Patent No. 5,531,299 to BATAILLE. LAI in view of BAUER, *supra*, discloses the claimed invention with the exception of providing threads to the shaft for fastening to the holder (claim 5), using Teflon® (PTFE) on the cylinder and/or piston (claim 9), and an oil seal and bushing mounted at the end of the cylinder in succession (claim 12).

Regarding claim 5, BATAILLE teaches that it is known to provide an oil damper with threads at the end of the shaft capable of fastening the damper to holding means (see top of Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the integral shaft/holder configuration of LAI separate by using thread fastening at the end of the shaft as taught in BATAILLE, since it has been held that making integral structures separate or removable for their intended purpose involves only routine skill in the art. See *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). Generally speaking, it is a matter of engineering choice

Art Unit: 1792

to substitute known fastening means for another to yield the predictable results of fastening components.

Regarding claim 9, BATAILLE teaches that it is known to use PTFE in an oil damper for the purpose of providing a lubricated frictional connection (see col. 5, ll. 54-59). Therefore, it would have been obvious to provide the frictional contact structures in LAI with PTFE for the purpose of providing lubricating contact between frictional components. Similarly regarding claims 10-11, the use of known resins such as POM, PC, PBT and polyacetal, as well as engineering plastic or fiber reinforced plastic for their known properties is common knowledge in the art, and the use of known materials for their known properties is *prima facie* obvious absent evidence of unexpected results or a showing of unpredictability.

Regarding claim 12, while LAI provides structure at the end of the cylinder which functions to seal oil and guide the linear motion of the piston rod, LAI does not disclose an oil seal and bushing configuration. BATAILLE teaches that it is known to provide an end of the cylinder with an oil seal (10) and bushing (guide 18) mounted in succession on an inside of the cylinder (see Figures 2-7 and relative associated text). It would have been obvious to substitute one oil seal and bushing configuration for the other to yield the same predictable results since the substitution of structural equivalents are *prima facie* obvious.

10. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over LAI in view of BAUER, and further in view of U.S. Patent No. 5,277,281 to CARLSON et

Art Unit: 1792

al. ("CARLSON"). LAI in view of BAUER, *supra*, discloses the claimed invention but does not expressly disclose the use of carbon steel or welding. Regarding claim 25, CARLSON teaches that it is known to form damper components from well known materials such as carbon steel (col. 4, ll. 24-26). Thus, it would have been an obvious engineering choice to form the damper of LAI using known materials such as carbon steel since the selection of known materials for their known properties is well within the level and skill generally available to one having ordinary skill in the art. Regarding claims 26-27, these claims are generally directed to the method of making and do not serve to patentably distinguish the claimed apparatus. Regarding claims 27-28, CARLSON teaches that it is known to fasten damper components via known fastening means including fasteners, welding or threads (see col. 8, ll. 51-55). Therefore, the position is taken that providing known fastening means to fasten components in a damper is well within the level and skill generally available to one having ordinary skill in the art, and the substitution of one known fastening means for another would achieve the same predictable result and, as such, is *prima facie* obvious.

11. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over LAI in view of BAUER, VOELKEL, BATAILLE, and CARLSON. LAI in view of BAUER, and further in view of each of VOELKEL, BATAILLE and CARLSON, *supra*, disclose the claimed invention with the exception of combining the known elements and known materials into a single oil damper. However, the combination of known elements and known materials is *prima facie* obvious when the combination provides predictable

Art Unit: 1792

results. In the instant case, the combination and substitution of equivalent structures and materials produces the same predictable results and is considered *prima facie* obvious absent evidence to the contrary.

Allowable Subject Matter

12. Claims 13-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Publication No. 2005/0051397 to GOSCINSKI, U.S. Patent No. 6,581,918 to VOELKEL, U.S. Patent No. 6,325,187 to BOUCHER, U6,311,962 & 6,135,434 to MARKING, U.S. Patent No. 5,207,081 to FUSE, U.S. Patent No. 4,991,412 to BAUER et al., U.S. Patent No. 4,934,493 to BAUER et al., U.S. Patent No. 4,765,444 to BAUER et al. & U.S. Patent No. 3,424,448 to CHAK MA, each disclosing related fluid damper configurations.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 8:00-4:30.

Art Unit: 1792

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph L. Perrin/
Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1792

JLP